

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
TYLER DIVISION**

SAXON INNOVATIONS, LLC §  
§  
V. § CIVIL ACTION NO. 6:08-CV-265  
§  
APPLE INC., et al. §

**MEMORANDUM OPINION & ORDER**

Before the Court is Defendants Asus, Gateway Inc., Acer America Corp., Acer, Inc., Hewlett-Packard Company, and Dell Inc.’s<sup>1</sup> (“Defendants”) motion for summary judgment of invalidity of all claims of U.S. Patent No. 5,235,635 (“the ‘635 Patent”) (Doc. No. 232). Plaintiff Saxon Innovations, LLC (“Plaintiff”) filed a response (Doc. No. 250) and Defendants filed a reply (Doc. No. 251). On January 28, 2010, the Court heard argument (Doc. No. 258). Having considered the parties’ submissions and argument, the Court **DENIES** Defendants’ motion.

**BACKGROUND**

The ‘635 Patent is entitled “Keypad Monitor with Keypad Activity-Based Activation.” The patent describes a “keypad monitor and associated circuitry [that] is activated in response to received clock signals from an external clock source and deactivated in the absence of clock signals.” ‘635 Patent 1:10-13. A keypad monitor is a device that uses scanning circuitry to determine which key is depressed. *Id.* 1:18-36. In the absence of an external clock signal, the disclosed keypad monitor deactivates to reduce power consumption. *Id.* 2:9-48. When a key is subsequently pressed, a signal prompts the external clock to resume providing clock signals, thereby reactivating the keypad monitor. *Id.*

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<sup>1</sup> Defendants Acer America Corp., Acer Inc., Hewlett-Packard Company, and Dell Inc. have been dismissed from this suit (Doc. Nos. 265, 285, 300).

Defendants contend the claims of the ‘635 Patent are indefinite “because each of the independent claims contains at least one means-plus-function claim element for which the patentee failed to disclose any identifiable structure.” DEFS.’ MOT. at 7. Specifically, Defendants argue “clock detector 109,” “any key down logic 105,” and “code logic 103” are inadequate disclosures of structure for performing the functions of the “clock detecting means,” “output means,” and “means for generating,” respectively, because they are simply “black boxes.” *Id.* at 6-7. Plaintiff argues the claims are not indefinite because one of ordinary skill in the art would understand the circuitry corresponding to each box. PL.’S RESP. at 1-3.

### **LEGAL STANDARD**

“Summary judgment is appropriate in a patent case, as in other cases, when there is no genuine issues as to any material fact and the moving party is entitled to judgment as a matter of law.” *Nike Inc. v. Wolverwine World Wide, Inc.*, 43 F.3d 644, 646 (Fed. Cir. 1994); FED. R. CIV. P. 56(c). The moving party bears the initial burden of “informing the district court of the basis for its motion” and identifying the matter that “it believes demonstrate[s] the absence of a genuine issue of material fact.” *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). If the moving party meets this burden, then the nonmoving party must then set forth “specific facts showing a genuine issue for trial.” Fed. R. Civ. P. 56(e)(2); *see also T.W. Elec. Serv., Inc. v. Pacific Elec. Contractors Ass’n*, 809 F.2d 626, 630 (9th Cir. 1987).

A patent is presumed valid. 35 U.S.C. § 282; *United States Gypsum Co. v. Nat'l Gypsum Co.*, 74 F.3d 1209, 1212 (Fed. Cir. 1996). A party challenging this presumption must prove invalidity by clear and convincing evidence. *Id.* Whether a patent claim is indefinite is a question of law and proper subject matter for a motion for summary judgment. *Atmel Corp. v. Information*

*Storage Devices, Inc.*, 198 F.3d 1374, 1378 (Fed. Cir. 1999).

When a claim limitation is expressed in “means plus function” language and does not recite definite structure in support of its function, the limitation is subject to 35 U.S.C. § 112, ¶ 6. *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). Such a limitation is “construed to cover the corresponding structure . . . described in the specification and equivalents thereof.” 35 U.S.C. § 112, ¶ 6. “A structure disclosed in the specification qualifies as ‘corresponding’ structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.” *Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1298 (Fed. Cir. 2005). “If there is no structure in the specification corresponding to the means-plus-function limitation in the claims, the claim will be found invalid as indefinite.” *Biomedino, LLC v. Waters Techs. Corp.*, 490 F.3d 949, 950 (Fed. Cir. 2007). The corresponding structure “must include all structure that actually performs the recited function.” *Id.*

## **DISCUSSION**

### **A. Clock Detecting Means**

Independent claims 1 and 12 recite “clock detecting means for detecting the presence and absence of said clock signals and providing a second output signal responsive to detecting the absence of said clock signals.” ‘635 Patent 11:56-59; 13:6-9. The parties agree these are means-plus-function elements subject to 35 U.S.C. § 112, ¶ 6 and agree the claimed functions are “detecting the presence and absence of said clock signals and providing a second output signal responsive to detecting the absence of said clock signals.” DEFS.’ MOT. at 5.

Plaintiff contends “clock detector 109,” depicted in Figure 3, is structure corresponding to these functions. PL.’S RESP. at 6. Defendants argue this structure is inadequate because the

specification does not disclose the internal structure of “clock detector 109.” DEFS.’ MOT. at 7-8.

Although both parties acknowledge “patent documents need not include subject matter that is known in the field of the invention and is in the prior art,” *S3 Inc. v. nVidia Corp.*, 259 F.3d 1364, 1371 (Fed. Cir. 2001), the parties disagree whether “clock detector” circuits were well-known to skilled artisans such that further disclosure was unnecessary. DEFS.’ MOT. at 8-9; PL.’S RESP. at 6-10.

“[T]he absence of internal circuitry in the written description does not automatically render the claim indefinite.” *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1338 (Fed. Cir. 2008). When a component “is of well-known electronic structure and performs a common electronic function, and is readily implemented from the description in the specification,” disclosure of internal circuitry is unnecessary. *S3*, 259 F.3d at 1371; *see also Videotek*, 545 F.3d at 1339 (finding black box disclosure adequate where “technology to perform the claimed function was available at the relevant time and would have been known to a person skilled in the art”); *Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1322 (Fed. Cir. 2004) (finding black box disclosure adequate where it “reference[d] a discrete class of circuit structures that perform known functions”).

The specification explains the function of the clock detector as “detect[ing] the presence and absence of the clock signals. In the absence of clock signals, the clock detector provides a second output signal at an output 115 . . . .” ‘635 Patent 7:31-33. The parties dispute whether a skilled artisan would have understood this function was performed by a well-known component. Plaintiff offers its expert’s declaration and deposition testimony in support of its position that “one of ordinary skill in the art would understand a clock detector as described in the ‘635 specification to be one of a few well known circuits, *e.g.*, a retriggerable monostable multivibrator. Such circuits were well-known more than a decade prior to the date of the ‘635 Patent.” PL.’S RESP. at 6 (quoting

Strader Decl. at ¶ 4). Plaintiff further identifies prior art references supporting this conclusion. *Id.* at 6-8. These references, all of which were available prior to the date of the ‘635 Patent, describe conventional clock detection mechanisms. *See id.* (discussing disclosure of clock detection devices by U.S. Patent Nos. 4,887,071; 4,672,325; 4,322,580; 4,037,257). Defendants submit their expert’s declaration which states the term “clock detector” was not in common usage or well-known. Soderman Decl. at ¶ 6.

The Court is persuaded a “clock detector” was a well-known device that performed a common function. *See S3*, 259 F.3d at 1371 (finding such black box reference to well-known device adequate). The Court finds one of ordinary skill in the art would have understood a clock detector to be a retriggerable monostable multivibrator and equivalents thereof. Therefore, the Court finds “clock detector 109” is adequate structure corresponding to the claimed functions and the claim terms are not indefinite.

## **B. Output Means**

Independent claim 1 recites “output means coupled to said external clock source and responsive to said first and second output signals for providing an activation signal to cause said external clock source to provide said telephone apparatus with said clock signals” ‘635 Patent 11:60-64. Similarly, independent claim 12 recites “output means . . . for providing an activation signal to cause said external clock source to provide said keypad monitor with said clock signals for activating said keypad monitor.” *Id.* 13:10-15. The parties agree these are means-plus-function elements subject to 35 U.S.C. § 112, ¶ 6 and agree the claimed functions are “responsive to said first and second output signals, providing an activation signal to cause said external clock source to provide said telephone apparatus with said clock signals.” DEFS.’ MOT. at 5.

Plaintiff contends “any key down logic 105,” depicted in Figure 3, is structure corresponding to these functions. PL.’S RESP. at 11. Defendants argue this structure is inadequate because the specification does not disclose the internal structure of “any key down logic 105.” DEFS.’ MOT. at 9-11. The parties disagree as to whether “any key down logic” refers to a well-known electronic component. *Id.* at 10; PL.’S RESP. at 11. Plaintiff argues the specification indicates the “any key down logic” is an AND gate. PL.’S RESP. at 11.

As the Court previously discussed, “the absence of internal circuitry in the written description does not automatically render the claim indefinite.” *Videotek*, 545 F.3d at 1338. The specification states:

The any key down logic 105 provides the any key down signal at output 112 responsive to receiving the first output signal at its input [111<sup>2</sup>] and the second output signal at its input 117. As a result, the any key down logic generates that any key down signal at its output 112 when any one of the keypad switches is closed together with the absence of clock signals being received at input 107.

‘635 Patent 7:35-42. Plaintiff’s expert explained one of ordinary skill “would recognize from this disclosure that any key down logic simply ANDs the input signal 111 and the input signal 117 to produce output signal 112.” PL.’S RESP. at 12 (citing Strader Decl. at ¶ 11). Furthermore, one of ordinary skill in the art would understand the specification as disclosing the use of an AND gate or equivalent. *Id.* The Court is persuaded one of ordinary skill in the art would have understood the structure corresponding to the claimed functions was an AND gate, a well-known structure used to perform a common function. *See S3*, 259 F.3d at 1371. Accordingly, the Court finds “any key down logic 105” is adequate structure corresponding to the claimed functions and the claim terms

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<sup>2</sup> Although the written description refers to input “110,” it is clear this was a typographical error and that the reference should have been to input “111.”

are not indefinite.

### C. Means for Generating

Dependent claim 13 recites “means for generating a unique multiple-bit code identifying which of said plurality of switches has a changed condition in response to receiving said clock signals.” ‘635 Patent 13:17-20. The parties agree this means-plus-function element is subject to 35 U.S.C. § 112, ¶ 6 and agree the claimed function is “generating a unique multiple-bit code identifying which of said plurality of switches has a changed condition in response to receiving said clock signals.” DEFS.’ MOT. at 5.

Plaintiff contends “code logic 103,” depicted in Figure 3, is structure corresponding to these functions. PL.’S RESP. at 12-14. Defendants argue this structure is inadequate because the specification does not disclose the internal structure of “code logic 103.” DEFS.’ MOT. at 11-12. Defendants dispute Plaintiff’s position that the specification expressly teaches “code logic 103” consists of two encoders, which were well-known structures in the art. *Id.* at 11-12; PL.’S RESP. at 12-14.

The specification teaches generating a multi-bit code by way of encoders 105 and 109. ‘635 Patent 10:60-62. In the context of the entire specification, this multi-bit code is clearly the same code generated by “code logic 103.” See *id.* 7:51-55, 9:56-63. Thus, code logic 103 consists of encoders that generate a multi-bit code. Plaintiff’s expert identified technical references describing an encoder as “easily constructed with OR gates.” PL.’S RESP. at 14 (quoting Ex. 7 to Strader Decl.) Similarly, Plaintiff’s expert identified a technical reference stating “[because] encoders from a one-out-of- $n$  code require just  $n$  OR gates, they are so simple as to be seldom discussed.” *Id.* (quoting Ex. 8 to Strader Decl.) The Court is persuaded one of ordinary skill in the art would have

understood the ‘635 Patent to expressly disclose “code logic 103” as consisting of two encoders. The Court is further persuaded encoders were well-known structures in the art used to perform common functions. *See S3*, 259 F.3d at 1371. Accordingly, the Court finds “code logic 103” is adequate structure corresponding to the claimed functions and the claim term is not indefinite.

### **CONCLUSION**

For the foregoing reasons, the Court **DENIES** Defendants’ motion.

**So ORDERED and SIGNED this 7th day of May, 2010.**



JOHN D. LOVE  
UNITED STATES MAGISTRATE JUDGE